

Pediatric Quality Indicator 12 (PDI 12) Central Venous Catheter-Related Blood Stream Infection Rate

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Provider-Level Indicator

Type of Score: Rate

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DESCRIPTION

Central venous catheter-related bloodstream infections (secondary diagnosis) per 1,000 medical and surgical discharges for patients ages 17 years and younger. Includes metrics for discharges grouped by risk category. Excludes cases with a principal diagnosis of a central venous catheter-related bloodstream infection, cases with a secondary diagnosis of a central venous catheter-related bloodstream infection present on admission, normal newborns, neonates with a birth weight of less than 500 grams, cases with stays less than two (2) days, and obstetric cases.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]

NUMERATOR

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for central venous catheter-related bloodstream infections (**IDTMC3D**^{*}).

Note: The Numerator definition is identical for Overall, High, Intermediate, and Low Risk Categories.

DENOMINATOR OVERALL

Surgical (**Appendix C**) and medical (**Appendix E**) discharges, for patients ages 17 years and younger. Surgical and medical discharges are defined by specific MS-DRG codes.

[Appendix C - Surgical MS-DRGS](#)
[Appendix E - Medical MS-DRGS](#)

DENOMINATOR OVERALL EXCLUSIONS

Exclude cases:

- Among patients otherwise qualifying for numerator with a principle or secondary ICD-10-CM diagnosis code for central venous catheter-related bloodstream infection (*IDTMC3D* *).
- normal newborns (*Appendix I*)
- neonates (*Appendix I*) with birth weight less than 500 grams (Birth Weight Category 1) (*Appendix L*)
- with length of stay less than two (2) days
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

Note: The Denominator Exclusions are identical for Overall, High, Intermediate and Low Risk Categories.

[Appendix I - Definitions of Neonate, Newborn, Normal Newborn, and Outborn](#)

[Appendix L - Low Birth Weight Categories](#)

Strata are mutually exclusive. Patients cannot qualify for more than one stratum.

DENOMINATOR HIGH RISK CATEGORY

Patients otherwise qualifying for overall denominator, with any-listed ICD-10-CM diagnosis codes for high-risk immunocompromised state (*Appendix F*) or any-listed ICD-10-PCS procedure codes for high-risk immunocompromised state (transplant) (*TRANSPP* *) or any-listed ICD-10-CM diagnosis codes for cancer (*Appendix M*).

[Appendix F - High-Risk Immunocompromised States Diagnosis and Procedure Codes](#)

[Appendix M - Cancer](#)

DENOMINATOR INTERMEDIATE RISK CATEGORY

Patients otherwise qualifying for overall denominator, with either:

- any-listed ICD-10-CM diagnosis codes for intermediate-risk immunocompromised state; (*Appendix G*)
- any-listed ICD-10-CM diagnosis codes for cirrhosis (*HEPFA2D* *) and hepatic failure; (*HEPFA3D* *)
- any-listed ICD-10-CM diagnosis codes for cystic fibrosis; (*ACSCYFD* *)
- any-listed ICD-10-CM diagnosis codes for hemophilia (*HEMOPHD* *)

[Appendix G - Intermediate-Risk Immunocompromised States Diagnosis Code](#)

DENOMINATOR LOW RISK CATEGORY

Patients otherwise qualifying for overall denominator, and not meeting the inclusion criteria for the High Risk Category or the Intermediate Risk Category.

* See below for code list

Central venous catheter-related blood stream infection diagnosis code: (IDTMC3D)

T80211A Bloodstream infection due to central venous
catheter, initial encounter

Cirrhosis diagnosis codes: (HEPFA2D)

K702	Alcoholic fibrosis and sclerosis of liver	K744	Secondary biliary cirrhosis
K7030	Alcoholic cirrhosis of liver without ascites	K745	Biliary cirrhosis, unspecified
K7031	Alcoholic cirrhosis of liver with ascites	K7460	Unspecified cirrhosis of liver
K740	Hepatic fibrosis	K7469	Other cirrhosis of liver
K743	Primary biliary cirrhosis		

Hepatic failure diagnosis codes: (HEPFA3D)

K7040	Alcoholic hepatic failure without coma	K7210	Chronic hepatic failure without coma
K7041	Alcoholic hepatic failure with coma	K7211	Chronic hepatic failure with coma
K7110	Toxic liver disease with hepatic necrosis, without coma	K7290	Hepatic failure, unspecified without coma
K7111	Toxic liver disease with hepatic necrosis, with coma	K7291	Hepatic failure, unspecified with coma
K7200	Acute and subacute hepatic failure without coma	K767	Hepatorenal syndrome
K7201	Acute and subacute hepatic failure with coma		

Cystic fibrosis diagnosis codes: (ACSCYFD)

E840	Cystic fibrosis with pulmonary manifestations	E848	Cystic fibrosis with other manifestations
E8411	Meconium ileus in cystic fibrosis	E849	Cystic fibrosis, unspecified
E8419	Cystic fibrosis with other intestinal manifestations		

Hemophilia diagnosis codes: (HEMOPHD)

D66	Hereditary factor VIII deficiency	D681	Hereditary factor XI deficiency
D67	Hereditary factor IX deficiency	D682	Hereditary deficiency of other clotting factors
D680	Von Willebrands disease		

High-risk immunocompromised state procedure codes: (TRANSPP)

02YA0Z0	Transplantation of Heart, Allogeneic, Open Approach	30233X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Peripheral Vein, Percutaneous Approach
02YA0Z2	Transplantation of Heart, Zooplastic, Open Approach	30233Y0	Transfusion of Autologous Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
0BYC0Z0	Transplantation of Right Upper Lung Lobe, Allogeneic, Open Approach	30233Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
0BYC0Z2	Transplantation of Right Upper Lung Lobe, Zooplastic, Open Approach	30233Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
0BYD0Z0	Transplantation of Right Middle Lung Lobe, Allogeneic, Open Approach	30233Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
0BYD0Z2	Transplantation of Right Middle Lung Lobe, Zooplastic, Open Approach	30233Y4	Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Peripheral Vein, Percutaneous Approach
0BYF0Z0	Transplantation of Right Lower Lung Lobe, Allogeneic, Open Approach	30240AZ	Transfusion of Embryonic Stem Cells into Central Vein, Open Approach
0BYF0Z2	Transplantation of Right Lower Lung Lobe, Zooplastic, Open Approach	30240G0	Transfusion of Autologous Bone Marrow into Central Vein, Open Approach
0BYG0Z0	Transplantation of Left Upper Lung Lobe, Allogeneic, Open Approach	30240G1	Transfusion of Nonautologous Bone Marrow into Central Vein, Open Approach
0BYG0Z2	Transplantation of Left Upper Lung Lobe, Zooplastic, Open Approach	30240G2	Transfusion of Allogeneic Related Bone Marrow into Central Vein, Open Approach
0BYH0Z0	Transplantation of Lung Lingula, Allogeneic, Open Approach	30240G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Open Approach
0BYH0Z2	Transplantation of Lung Lingula, Zooplastic, Open Approach	30240G4	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Open Approach
0BYJ0Z0	Transplantation of Left Lower Lung Lobe, Allogeneic, Open Approach	30240X0	Transfusion of Autologous Cord Blood Stem Cells into Central Vein, Open Approach
0BYJ0Z2	Transplantation of Left Lower Lung Lobe, Zooplastic, Open Approach	30240X1	Transfusion of Nonautologous Cord Blood Stem Cells into Central Vein, Open Approach
0BYK0Z0	Transplantation of Right Lung, Allogeneic, Open Approach	30240X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Central Vein, Open Approach

0BYK0Z2	Transplantation of Right Lung, Zooplastic, Open Approach	30240X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Central Vein, Open Approach
0BYL0Z0	Transplantation of Left Lung, Allogeneic, Open Approach	30240X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Central Vein, Open Approach
0BYL0Z2	Transplantation of Left Lung, Zooplastic, Open Approach	30240Y0	Transfusion of Autologous Hematopoietic Stem Cells into Central Vein, Open Approach
0BYM0Z0	Transplantation of Bilateral Lungs, Allogeneic, Open Approach	30240Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Central Vein, Open Approach
0BYM0Z2	Transplantation of Bilateral Lungs, Zooplastic, Open Approach	30240Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Central Vein, Open Approach
0DY50Z0	Transplantation of Esophagus, Allogeneic, Open Approach	30240Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Central Vein, Open Approach
0DY50Z2	Transplantation of Esophagus, Zooplastic, Open Approach	30240Y4	Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Central Vein, Open Approach
0DY60Z0	Transplantation of Stomach, Allogeneic, Open Approach	30243AZ	Transfusion of Embryonic Stem Cells into Central Vein, Percutaneous Approach
0DY60Z2	Transplantation of Stomach, Zooplastic, Open Approach	30243G0	Transfusion of Autologous Bone Marrow into Central Vein, Percutaneous Approach
0DY80Z0	Transplantation of Small Intestine, Allogeneic, Open Approach	30243G1	Transfusion of Nonautologous Bone Marrow into Central Vein, Percutaneous Approach
0DY80Z2	Transplantation of Small Intestine, Zooplastic, Open Approach	30243G2	Transfusion of Allogeneic Related Bone Marrow into Central Vein, Percutaneous Approach
0DYE0Z0	Transplantation of Large Intestine, Allogeneic, Open Approach	30243G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Percutaneous Approach
0DYE0Z2	Transplantation of Large Intestine, Zooplastic, Open Approach	30243G4	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Percutaneous Approach
0FSG0ZZ	Reposition Pancreas, Open Approach	30243X0	Transfusion of Autologous Cord Blood Stem Cells into Central Vein, Percutaneous Approach
0FSG4ZZ	Reposition Pancreas, Percutaneous Endoscopic Approach	30243X1	Transfusion of Nonautologous Cord Blood Stem Cells into Central Vein, Percutaneous Approach
0FY00Z0	Transplantation of Liver, Allogeneic, Open Approach	30243X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Central Vein, Percutaneous Approach

0FY00Z2	Transplantation of Liver, Zooplastic, Open Approach	30243X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Central Vein, Percutaneous Approach
0FYG0Z0	Transplantation of Pancreas, Allogeneic, Open Approach	30243X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Central Vein, Percutaneous Approach
0FYG0Z2	Transplantation of Pancreas, Zooplastic, Open Approach	30243Y0	Transfusion of Autologous Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
0TY00Z0	Transplantation of Right Kidney, Allogeneic, Open Approach	30243Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
0TY00Z2	Transplantation of Right Kidney, Zooplastic, Open Approach	30243Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
0TY10Z0	Transplantation of Left Kidney, Allogeneic, Open Approach	30243Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
0TY10Z2	Transplantation of Left Kidney, Zooplastic, Open Approach	30243Y4	Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Central Vein, Percutaneous Approach
0WY20Z0	Transplantation of Face, Allogeneic, Open Approach	30250G0	Transfusion of Autologous Bone Marrow into Peripheral Artery, Open Approach
0XYJ0Z0	Transplantation of Right Hand, Allogeneic, Open Approach	30250G1	Transfusion of Nonautologous Bone Marrow into Peripheral Artery, Open Approach
0XYK0Z0	Transplantation of Left Hand, Allogeneic, Open Approach	30250X0	Transfusion of Autologous Cord Blood Stem Cells into Peripheral Artery, Open Approach
30230AZ	Transfusion of Embryonic Stem Cells into Peripheral Vein, Open Approach	30250X1	Transfusion of Nonautologous Cord Blood Stem Cells into Peripheral Artery, Open Approach
30230G0	Transfusion of Autologous Bone Marrow into Peripheral Vein, Open Approach	30250Y0	Transfusion of Autologous Hematopoietic Stem Cells into Peripheral Artery, Open Approach
30230G1	Transfusion of Nonautologous Bone Marrow into Peripheral Vein, Open Approach	30250Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Peripheral Artery, Open Approach
30230G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Open Approach	30253G0	Transfusion of Autologous Bone Marrow into Peripheral Artery, Percutaneous Approach
30230G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Open Approach	30253G1	Transfusion of Nonautologous Bone Marrow into Peripheral Artery, Percutaneous Approach
30230G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Open Approach	30253X0	Transfusion of Autologous Cord Blood Stem Cells into Peripheral Artery, Percutaneous Approach

30230X0	Transfusion of Autologous Cord Blood Stem Cells into Peripheral Vein, Open Approach	30253X1	Transfusion of Nonautologous Cord Blood Stem Cells into Peripheral Artery, Percutaneous Approach
30230X1	Transfusion of Nonautologous Cord Blood Stem Cells into Peripheral Vein, Open Approach	30253Y0	Transfusion of Autologous Hematopoietic Stem Cells into Peripheral Artery, Percutaneous Approach
30230X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Peripheral Vein, Open Approach	30253Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Peripheral Artery, Percutaneous Approach
30230X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Peripheral Vein, Open Approach	30260G0	Transfusion of Autologous Bone Marrow into Central Artery, Open Approach
30230X4	Transfusion of Allogeneic Unspecified Cord Blood Stem Cells into Peripheral Vein, Open Approach	30260G1	Transfusion of Nonautologous Bone Marrow into Central Artery, Open Approach
30230Y0	Transfusion of Autologous Hematopoietic Stem Cells into Peripheral Vein, Open Approach	30260X0	Transfusion of Autologous Cord Blood Stem Cells into Central Artery, Open Approach
30230Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Peripheral Vein, Open Approach	30260X1	Transfusion of Nonautologous Cord Blood Stem Cells into Central Artery, Open Approach
30230Y2	Transfusion of Allogeneic Related Hematopoietic Stem Cells into Peripheral Vein, Open Approach	30260Y0	Transfusion of Autologous Hematopoietic Stem Cells into Central Artery, Open Approach
30230Y3	Transfusion of Allogeneic Unrelated Hematopoietic Stem Cells into Peripheral Vein, Open Approach	30260Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Central Artery, Open Approach
30230Y4	Transfusion of Allogeneic Unspecified Hematopoietic Stem Cells into Peripheral Vein, Open Approach	30263G0	Transfusion of Autologous Bone Marrow into Central Artery, Percutaneous Approach
30233AZ	Transfusion of Embryonic Stem Cells into Peripheral Vein, Percutaneous Approach	30263G1	Transfusion of Nonautologous Bone Marrow into Central Artery, Percutaneous Approach
30233G0	Transfusion of Autologous Bone Marrow into Peripheral Vein, Percutaneous Approach	30263X0	Transfusion of Autologous Cord Blood Stem Cells into Central Artery, Percutaneous Approach
30233G1	Transfusion of Nonautologous Bone Marrow into Peripheral Vein, Percutaneous Approach	30263X1	Transfusion of Nonautologous Cord Blood Stem Cells into Central Artery, Percutaneous Approach
30233G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Percutaneous Approach	30263Y0	Transfusion of Autologous Hematopoietic Stem Cells into Central Artery, Percutaneous Approach
30233G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Percutaneous Approach	30263Y1	Transfusion of Nonautologous Hematopoietic Stem Cells into Central Artery, Percutaneous Approach

30233G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Percutaneous Approach	3E030U1	Introduction of Nonautologous Pancreatic Islet Cells into Peripheral Vein, Open Approach
30233X0	Transfusion of Autologous Cord Blood Stem Cells into Peripheral Vein, Percutaneous Approach	3E033U1	Introduction of Nonautologous Pancreatic Islet Cells into Peripheral Vein, Percutaneous Approach
30233X1	Transfusion of Nonautologous Cord Blood Stem Cells into Peripheral Vein, Percutaneous Approach	3E0J3U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Percutaneous Approach
30233X2	Transfusion of Allogeneic Related Cord Blood Stem Cells into Peripheral Vein, Percutaneous Approach	3E0J7U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Via Natural or Artificial Opening
30233X3	Transfusion of Allogeneic Unrelated Cord Blood Stem Cells into Peripheral Vein, Percutaneous Approach	3E0J8U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic